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### Survival after stroke in south London

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influenza and play some part in prevention. The EMEA has produced guidance to aid national decisions on procurement and use of antivirals.

The European Centre for Disease Prevention and Control monitors the epidemiological situation and is currently developing a preparedness assessment tool to be field tested in the coming weeks. The centre and the European Commission are also supporting the European influenza surveillance scheme, which is continuously adapting its epidemiological and virological monitoring to the threat of an H5N1 pandemic. On the EU level, links between human and veterinarian medicine exist but need to be further strengthened. More work is especially needed for effective crisis communication.

A pandemic will occur in the future. European institutions are taking this threat seriously, with efforts that will eventually pay off through reduced morbidity and mortality in the next pandemic. Meanwhile, activities to prepare for an influenza pandemic also make Europe better equipped to tackle seasonal influenza and other major public health crises. This is worth the investment and efforts.

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## Survival after stroke in south London

*Is apparently higher in black patients than in white ones*

Papers p 431

Few studies have compared the incidence and outcome of stroke in black and white people from the same population. Two population based stroke registers in US cities<sup>1,2</sup> and one in the United Kingdom (the south London stroke register)<sup>3</sup> found twice the incidence of stroke adjusted for age and sex in black people than in white people. Adjusting for socioeconomic status in the south London register attenuated but did not abolish this excess.<sup>3</sup> None of these registers has found a significant difference between black people and white people in survival after stroke, and all have therefore attributed the excess mortality in black people to a higher incidence of stroke.<sup>2-4</sup>

The south London register now includes more than 2000 patients with a first ever stroke over seven years and has accrued 6000 person years of follow-up.<sup>5</sup> Such studies are rare these days even in the UK, whose universal healthcare system makes it an ideal location for population based epidemiological research. The challenges include obtaining ethical approval for observational studies without explicit consent, getting long term grants to support the research, and maintaining the enthusiasm of the research team and its collaborators.

In today's *BMJ*, Wolfe et al present their updated comparison of survival after stroke in black people and white people. On the face of it, the findings are surpris-

ing: black patients seemed to have a survival advantage, with a reduction of about a third in the relative risk of dying, corresponding to an increased median survival time of almost 14 months.<sup>5</sup>

So is this finding real or a methodological artefact, and if artefact what are the possible reasons? One possible methodological explanation is differential under-ascertainment of stroke cases between ethnic groups. The researchers on the south London register have previously assessed completeness of case ascertainment by using capture-recapture methods, implying that it is almost 90% complete for both black people and white people.<sup>6</sup> However, the validity of these methods for stroke registers has been questioned.<sup>7,8</sup> Also the proportions of cases in the register that were notified by general practitioners (14%) and not admitted to hospital (15%) were lower than in the UK based Oxfordshire Community Stroke Project and its successor, the Oxford vascular study, in both of which most cases were notified by general practitioners, and over 40% were not admitted to hospital.<sup>8-10</sup> This may indicate that the register missed a disproportionate number of patients with mild strokes who were not admitted to hospital. If this affected more white patients than black ones (for example, if more black patients sought care directly at hospital rather than at their general practice, and white patients obtained private health care outside the NHS more often, making

them harder to detect) it could cause an apparent excess stroke incidence and survival advantage in black people.

Alternatively, can the findings be explained by residual confounding? Black patients in the south London register were younger (by about 10 years), had a higher proportion of lacunar ischaemic strokes (which have a very low case fatality), and were more likely to be admitted to hospital and be cared for on a stroke unit,<sup>5</sup> all of which would tend to improve survival. However, the survival advantage persisted after adjustment for demographic variables, socioeconomic status, prior risk factors and their management, stroke severity, and acute stroke management. Adjustment for stroke severity in particular may have been incomplete as analyses were stratified by the main pathological types of stroke (ischaemic stroke, intracerebral haemorrhage, and subarachnoid haemorrhage), but it is unclear whether adjustment for the distributions of ischaemic stroke subtypes was undertaken.

However, the combination of differential case ascertainment and residual confounding could probably not explain all of the difference in survival, so what could explain a genuine ethnic difference? Subgroup analyses found that the difference was confined to older patients and those with minimal disability before their stroke,<sup>5</sup> but as only 166 black patients died this could be a chance finding. The authors propose that better control of risk factors among black patients may partly explain their better survival, and that the migrant population from Africa and the Caribbean may be particularly healthy.<sup>5</sup> But this would not explain the increased incidence of stroke in black people. Like studies in the US,<sup>11 12</sup> the south London register found a higher prevalence of hypertension and diabetes and a lower prevalence of ischaemic heart disease and atrial fibrillation in black stroke patients than in white ones. Such differences in risk factors may differentially influence particular causes of death after stroke, such as recurrent stroke or myocardial infarction. Finally, black patients could have better community care provision than white patients. Although the south London register's researchers have found no clear difference in

the provision of NHS care after stroke between ethnic groups,<sup>13</sup> they have not yet studied the care provided by families and other social networks, which may differ between ethnic groups.

The results are intriguing, and should encourage further studies of these possible explanations in south London and elsewhere.

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## Cardiac impairment or heart failure?

*“Heart failure” confuses doctors and patients and needs renaming*

“There is no disease that you either have or don't have—except perhaps sudden death or rabies. All other diseases you either have a little or a lot of,” said Geoffrey Rose.<sup>1</sup> This is true of “heart failure”—everybody can have a bit if they try hard enough, by physical exertion or even by emotional shock.<sup>2</sup> But, apart from transient induced cardiac overload, the term can be used to mean anything from asymptomatic systolic dysfunction to imminent death from pulmonary oedema. Because of widely varying definitions, the epidemiology of heart failure can become almost uninterpretable, with estimates of its prevalence in the United Kingdom

varying from 500 000 to 3 million.<sup>3</sup> Moreover, qualitative studies show that many patients are never told that they have heart failure because doctors are understandably reluctant to use the term.<sup>4</sup> When a label confuses doctors and impairs communication with patients, it seems sensible to change the label.

The recent increase in interest in heart failure began with interventional studies among highly selected patients. They were mainly men aged 60-65 on average, with a history of myocardial infarction or cardiomyopathy and a left systolic ejection fraction of less than 30-35% as measured by cardiac catheterisation or radionuclide ventriculography. After initial success in

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